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# MAY, 1883.

THE PROSPECT of the coming Wheat harvest, as ascertained by official inquiry, is not now so good as that of last year's at the corresponding time; nor is it probable that favorable weather henceforward will bring it up to the standard of the last crop. Reports from all parts of Europe leave but little doubt but there, also, the grain harvest will be below the average. Possibly spring sown Wheat in this country may be so good as to produce a different result from that now in prospect. But should the crop be a full one it will all be wanted, and probably at higher prices than have ruled the last year. Nor will a good Corn crop very much reduce the price of Wheat. With this view it will unquestionably be safe to make the breadth of Potato planting as great as ever, and to put the crop in and cultivate it in the most skillful manner. The potato beetle and a drought combined have proved to be too much for the skill opposed to them; these causes, should we again be simultaneously affected by them, will probably be as disastrous as they have been. We have no hesitation in saying that we do not think this should be so. The potato bug is a dull creature, it does its work openly, there is no difficulty in finding or reaching it, but it is industrious and prolific, and these qualities make it strong, too strong for many of us. It is no eight or ten hour laborer, but starts with the first warmth of the morning sun and continues its feeding until the stars twinkle. We know how to destroy it certainly and quickly, but we are often too careless about it. The knowledge of having the power to destroy the insect probably induces carelessness, and its destruction is often delayed until it becomes almost unnecessary. One easy-going, careless person in a neighborhood will keep the insects breeding all summer. A public spirit in regard to this matter should make a laxity in the destruction of the insect to be felt as a misdemeanor. In this way it will be easier for all to oppose the common enemy.

Unless we intend to use vigorous measures with this tribe the Potato crop should be left unplanted. Planting in drills is preferable to hills, and the sets should be placed as much as four inches deep. Whether Potatoes for planting should be cut to single eyes, or with two or three eyes to a set has not yet been fully determined. Experiments have at times proved both ways, and until this point is settled probably a medium course is best, cutting two or three eyes to a set, and planting them about a foot apart in the row. In field culture, as soon as the first shoots prick through the soil, it is well to go over the ground with a harrow, running lengthwise of the rows, thus destroying all young weeds that begin to show, and keeping the field in proper condition until general cultivation can commence.

The main products of the vegetable garden will well repay all the necessary care in their cultivation. With a small Apple crop at the west, as must be the case this season, and probably only a partial crop in the New England States, the crop raised in the Middle States, whatever that may be, will bring a good price. But the codlin moth is now causing so much injury, it is necessary to take promptly some measures to check its work, and, if possible, to confine it to narrow limits, even if it cannot be entirely stamped out. Trial has proved the most of these insects can be destroyed by the use of Paris Green or London The substance is mixed with Purple. water in proportion as for potato bugs, and placed in a barrel in a wagon. The barrel is supplied with a hand force pump and a short piece of hose with a brass nozzle. The wagon is driven through the orchard between the rows of trees, and each tree is sprayed with the poisonous water. The proper time to perform the operation is a few days after the blossoms have fallen and the young fruits have set. Then the insect is engaged puncturing the calyx end of the Apple, and depositing its eggs, and its destruction is certain. No injury results to the fruit. It is probable that this is the course that must eventually be pursued by every successful orchardist. The Peach buds, in this vicinity, have come through the winter apparently unharmed, but it is too soon to form an opinion in regard to a crop of fruit, for the dangers of late frosts and cold rains at blooming time have yet to be encountered, though the lateness of the season, this year, gives some ground to hope that the former may be escaped.

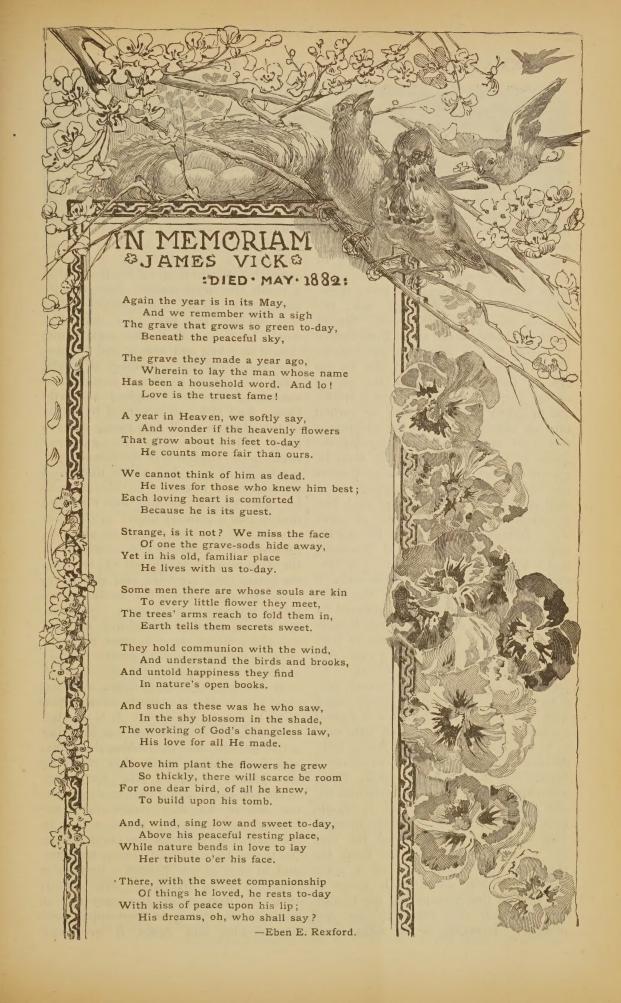
Last year, vegetation started here early in March. On the fourth of March we recorded the blooming of a wild plant; to-day, the fourth of April, though the snow has disappeared, except on the north and west sides of the hills, there is still a winter aspect. Day before yesterday the Robins gave us a general greeting, though an advance straggler had now and then been seen before. To-day is the first the air could be called mild,

and this, of course, only by comparison. Late springs are always regarded as favorable to fruit, and therefore a compensation to some extent for their disagreeable features. Though vegetation, this year, starts late, we have reason to think the first of June will see it, at least, as far advanced as last, and even farther, for the cool and wet weather continued remarkably late last year, retarding the growth and ripening of all grains and fruits to the latest period on record. On the whole, we must conclude that at the north generally the gardener's prospect is a good one, and it only remains for him to put forth the proper effort, and thus secure the reward of intelligent industry.

# WINTER BLOOMING PLANTS.

Some of the best plants for winter flowering must have attention given them from this time onward, to prepare them to take the place of our summer plants when the dull season comes. Many have already, probably, sowed seed of the Chinese Primrose and Cineraria; if not, there is still time, but the matter should now be taken in hand in earnest. The Chinese Primrose, more especially, should receive attention for window culture, while both are planted for the greenhouse. Chinese Chrysanthemums should not be overlooked, as they are of the highest value in the late fall and early winter months. A variety of colors is desirable, with plenty of white, and then it is also best to have some of large flowered varieties and some of small or pompon sorts, and also some of the Chinese. Good plants may be produced by setting them in the garden and cultivating them there until removed to pots, about the the first of September; but if kept in pots. from the first, and all through summer, finer plants can be obtained. The pots can be in a place a little shaded, and proper attention should be given to watering and repotting the plants, and regulating their growth by pinching in the shoots up to the first of August.

Cuttings from this time for two months onward can be made of Geraniums, and plants raised to be in prime condition during winter. Other plants can also be propagated, and a cold-frame will be found of great service.



## CLEMATIS JACKMANII.

This beautiful, free-flowering climber, though becoming well known, should be still more generally planted. It is a hybrid variety raised about twenty-five years ago at Woking, England, by a nurseryman named JACKMAN. It is a very fapid grower, producing woody stems that when well-ripened are sufficiently hardy to stand the cold of our winters. In order to secure the finest blooms, the most of the last year's growth should be removed, cutting the stems nearly or quite to the ground. When, however, a large number of flowers is more desirthan fewer of large size, the pruning should be less severe. Strong plants will often make stems from twelve to twenty feet in length in one season. This climber is a beautiful one by the side of the house, or about the pillars of the veranda, or trained on a trellis. An unsightly sod heap may be turned into an object of beauty by planting a few vines at its base and allowing the stems to run over it, which will soon be completely covered. The large flowers are borne on stems that support them well up above the foliage, and each one is conspicuous. An old fence, or some wires fastened to posts can be quickly converted into a green and blooming hedge by means of this plant. For covering arbors and rustic structures it should be largely employed. The effect of the plant in bloom is heightened by having a variety with large white flowers growing with it, and the stems of both plants intermingling. Nothing can excel the richness of the unique colors of C. Jackmanii, which is a deep, velvety, pur-The plant is easily suited plish-violet. with soil, for we see it grown in a great variety of places, ranging from light sand to heavy loam; it should have a welldrained situation, and then, wherever a garden may be made it will grow. Being a strong grower, the plant exhausts the soil rapidly, and every fall it should have a good dressing of stable manure. This should be placed about the vine for a considerable distance from the stem, for the roots run to a great Unless attention is given to proper and timely manuring the blooms will diminish very much in size and number. Layering is the most ready means of propagating for the amateur; in large quantities it is increased by grafting.

## CHECKING PLANT GROWTH.

Seeds of the Balsam, or the Aster, sown in the garden will produce plants which, if left to themselves, will run up as tall stems with few or no branches, and the flowers that are borne will be well up toward the upper part; a Cabbage, or a Cauliflower, under the same conditions, will have a long stem and the leaves somewhat distant from each other, and as a result the head smaller than usually seen in cultivation. These results will be less obvious the first year than they would be if seed from the same plants should be taken and sowed, and the process continued for a number of years, when the plants produced would have something like their original and wild form. And rich soil occupied by plants of this character will only cause them to grow still taller. Now, the gardener seeks in the vegetable or the flower stock not length of stem, but edible tissue and abundance of flowers. To obtain these he must have a rich soil, and therefore makes this a primary object in the preparation of his land; next, to produce, for instance, a Cabbage with a solid head, the stem must be shortened up to bring the leaves close together, and also to relieve the strain upon the roots by the longer leverage of a tall stem. So, again, the Balsam plant, provided with rich soil to make a strong growth, must be regulated so as to produce as great a number of branches as possible, and these brought near enough together to make a strong plant that shall not easily be blown over. How is this to be done? It is effected by sowing the seeds in rich soil, inducing active growth, and then lifting the plants and transplanting them, thus checking their growth for a short time; once more in the soil again, a new and more numerous set of hair-like root-feeders are formed, and the plant starts again. In the case of the Cabbage the check causes the leaves to be formed closely together, and in that of the Balsam a number of branches to be produced. After a short time, ten days or so, the operation of transplanting is again performed with like results, and again, if necessary.



## UNDER THE APPLE BOUGHS.

Drift upon drift of sweet-scented snow, The Apple boughs now are all bending low, Weighted with blossoms; and, list to the bird Trilling such lays as never were heard;

Yes, over and over,
That jubilant lover,
The gay meadow lark, all cheerily sings,
A fountain of praise, upon tremulous wings.

Fragrance in earth, and fragrance in air; Blossoms and beauty are everywhere; They are lost in a dream, these beautiful days, They are lost in a glamour of golden haze;

For, over and over, A true-hearted lover

Whispers in sweet tones now, in the spring-tide, Tenderest words to the maid at his side.

O, passing strange are these hearts of ours!

They are gayer than birds, they are brighter than flowers;

All over the world this sweetest spring day,
There is nothing more precious, or purer, than they;

And over and over

And, over and over, The gay wild-bird lover,

The lark, from his nest in the grasses, up springs, And pours out his heart in the song that he sings,

'Till the babbling brooklet no longer is heard, Nor murmur of bees, nor chatter of bird; All hark to the music, so thrillingly strong, The rapturous notes of the meadow-lark's song

Then, over and over,
The true-hearted lover,
Whispered his story, so sweet and so old,—
The sweetest old story that ever was told.

Slowly the maiden upraised her fair head, Her rose-tinted cheeks bloomed a richer rose-red, And her lashes were all a-tremble with tears, But her answer has thrilled me all the long years

Since, over and over,
The lark and the lover,
In exquisite bliss and in passionate pain,
Sang, down in the meadow, the very same strain.

And now, again droop the Apple boughs low
With their weight of pink-tinted, sweet-scented
snow;

And I heard the meadow-lark sing yesterday, But his song seemed slower and farther away, As, over and over,

This wild meadow-rover
Sang not half so sweetly, nor will he, ah, no!
As he sang 'neath the Apple boughs so long ago.

-DART FAIRTHORNE.

# MARKET GARDEN IN IOWA.

I live in central Iowa, two and onehalf miles from Sigourney, our county seat, whence I haul all my manure. I draw from two to three loads every day, and generally carry about a ton at a load. I spread the manure over the ground up to the first of January, then I throw about twenty loads together to heat for hotbeds. When the heat commences to rise I stir the whole pile, working in the outer edges to the center. When the mass becomes too dry sufficient water is thrown upon it, but last winter I threw on snow, for we had plenty of that article here. By stirring the heap I get an even heat all through it. I select the straw manure for the hot-bed, and sometimes mix in more straw so as to have the pile composed one-half of it, and thereby I find the heat will not be so rank, and will last twice as long as it will with short manure, and will not sour when watering the plants. Last winter I had my beds ready for sowing by the 22d of January, although that morning the mercury registered 32° below zero. My situation for a hot-bed is on a sandy piece of ground sloping to the south. I set posts on the north and west sides, leaving them eight feet high, and on these I nail boards from bottom to top for a wind-brake and for the reflection of the heat of the sun to the sash. I ascertain how much ground is needed for the beds and stake it out: the manure is then forked over, all the time being well pressed down by the feet, and is left about two and one-half feet high and two feet wider than the frames. The frames are then placed on top and, if very cold, hot manure is piled up to the top of the frame. About six inches of sandy soil is now placed over the manure in the frame, and the sash is put on, leaving a little air for the steam to escape.

In about two days it will be ready to It is very important to keep a thermometer in every bed to ascertain the heat without raising the sash, especially in windy weather. About 60° or 70° is high enough to allow the heat to rise; if the seeds are good they will be up in three or four days after sowing.

Then comes the active watching time, to cover up at night and to uncover in the morning. I generally have plenty of old carpets that I first spread over the sash, then boards, and, if it is very cold, still put on a foot or more of hay or During the daytime everything but the sash is removed to admit the sun to the plants. In about three weeks the plants must be removed to large frames, commonly called cold-frames, and set out two or three inches apart to give them room to grow. The cold-frames are cheap and easily made. I make them ten feet square, and sometimes place eighteen inches or two feet of warm manure under them, but if late enough in the spring this is not necessary. frames are covered with canvas of thin muslin by tacking a strip of wood two inches square to each end of the canvas, letting them hang over the sides of the frame, thus keeping the canvas stretched; the light will be as good as if glass were The ends of the canvas can be raised up on the frame and rolled in a little, in the middle of the day, to temper off the plants, and when they are gradually hardened off there is but little danger of freezing.

I find it very important to plow all the ground I can in the fall, as the frost can then penetrate through it better, and it will be better to work and will yield a greater crop. The plow should always be drawn by large horses and go deep, or from eight to twelve inches, which is not any too deep, and if a diamond plow is run in the same furrow five or six inches deeper it will doubly repay for the labor. I have twenty acres in my garden that is laid out in several plats, so as to change from one kind of vegetable to another every year; this is very important. I manure the ground intended for Cabbage heavier than for any other crop. and plow it thoroughly again in the spring. Cabbage plants can be set out as soon as the ground works well after the frost is out. I always plant every

thing that will bear the plow for horse cultivation, using the double shovel plow, working often and deep, and in dry weather plow the oftener. Last summer we had a very severe drouth here, and it looked as if every thing would burn up. I had a patch of six thousand Fottler's Cabbage that I plowed twice a week and they made splendid heads. I use good tools and implements and especially a good seed drill and wheel hoe and cultivator. Now, the question is often asked why A. or B. can have such a fine garden and every thing come to perfection, &c. My experience and observation teach me that it is imposssible for a lazy man to be a good gardener, from the fact there is work every day, and the man that manages his garden well, either for profit or pleasure, will be kept busy with his hands and his mind .- P. C., Sigourney, Iowa.

## DUSTY MILLER.

Cineraria maritima, or as it more popularly known under the familiar name of Dusty Miller, is one of our most valuable ornamental plants that have silvery foliage. It belongs to the natural order Compositæ, and is a native of the south of Europe, whence it was introduced into cultivation as early as 1633.

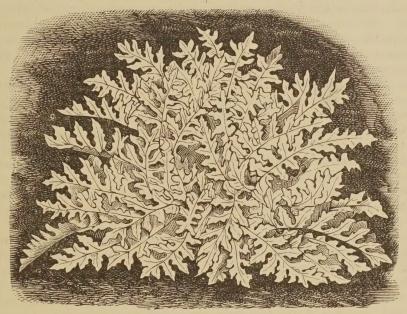
It is a half-hardy perennial plant, growing from one and a half to two and a half feet in height, with comparatively insignificant, yellow flowers, and deeply cut, pinnatifid, silvery grey leaves; and as it is of compact, vigorous, healthy growth, as well as being free from all insect pests, it is one of the most useful silvery-leaved plants we have for massing purposes or ribbon line. It stands our hot, dry summer weather without sustaining the least injury. In the mixed border single specimens are at all times very attractive, while well grown plants of it are very suitable for decorative purposes during the winter season, either in the conservatory or in the window garden.

When grown in the flower border this Cineraria prefers a moderately rich yet deep soil, and copious waterings during seasons of drought; and when grown in pots, ordinary potting soil will answer very well if good drainage is given. Do not over pot, and during the winter season give the plants a light, sunny situation, a temperature of from 45° to 50° and a liberal supply of water.

The quickest and easiest way of obtaining a stock of plants is to procure a packet or two of seeds early in February, when they should be sown in a well-drained pot or pan of light, sandy soil; sow thinly and cover slightly, place in a warm, moist situation, and, as soon as the young plants are strong enough to handle, transplant them into shallow boxes filled with ordinary potting soil, two inches apart each way; keep close and moist

are removed and reboxed, and treated as advised for young plants. Either of the above methods will produce fine plants if the directions given are followed, and a person can select the method which seems most desirable to him.

This Cineraria bears a considerable resemblance to some of the Centaureas, but as it is of more vigorous growth and is more easily propagated it is preferable for amateurs, to whom I can un-



CINERARIA MARITIMA.

until well established, and in a warm place until the young plants meet, then remove to a cold-frame, gradually harden them off, and plant them out when all danger of frost is over, which in this vicinity is about the middle of May. They transplant easily, even without a ball.

This Cineraria, however, does not obtain its best coat of silvery down before the second season, and so, if it is desirable to have the plant in all its beauty, it should be propagated by cuttings early in the spring, choosing the twiggy sideshoots, which when rooted treat as advised for young plants. Three or four nice, bushy plants, taken up before cold weather sets in, will furnish an abundance of cuttings in the spring, if placed in heat for two or three weeks, or if planted out in the flower border will produce an abundance of seed, if properly cared for.

Some prefer to sow the seed thinly in shallow boxes, about the middle of September, permitting the young plants to remain therein until spring, when they

hesitatingly recommend it as the finest silvery foliaged plants we have in cultivation.—Chas. E. Parnell, Queens, L. I.

## THE AMARYLLIS.

Some years ago, while hunting up authority for cultivating Amaryllis, I found such conflicting statements in regard to it I became greatly discouraged. Being specially fond of the plant I determined to risk much and learn for myself, demonstrate beyond a doubt if in ordinary window culture the finer varieties could be made a success. After many experiments and a few failures I succeeded beyond my fondest expectations. Reading the statements from a greenhouse or hot-house stand-point, the amateur is apt to conclude that they are not for him, that the common window and heating aparatus, such as many of our old fashioned houses contain, would not do; but as one so situated, I have proven otherwise, I began with A. Johnsonii and a few older sorts, and have added to them from time to time other fine named varieties, some being introduced and named, while others are unnamed seedlings, none have deteriorated, but rather the opposite.

These bulbs are natives of the Cape of Good Hope and South America. Hybrid varieties are becoming quite numerous, and many of them very beautiful. Owing to the different elevations at which they are found in their tropical homes some are more suitable for the window garden than others. Those called stove plants are more difficult of cultivation. In their native country they are subject to a period of continual wet and a corresponding dryness. The heat of the climate is most intense during their period of dryness, consequently when growing and blooming they require abundant nourishment and moisture; but at their season of rest only sufficient to keep the roots fresh, and a greater degree of heat than at the flowering season. It is absolutely necessary that the strength of the bulb be restored by a vigorous growth of leaves after blooming, all attaining full length before resting. At this time especially, or while the leaves are growing, they should be fed once a week with liquid manure, given from the bottom. Always avoid pouring it on the bulb. The soil should be heavy loam and sand, crock about three times the diameter of the bulb, and the bulb should stand fully one-half out of the soil.

Frequent repotting is unnecessary. The bulb will flower better from being cramped, so long as the drainage is good and the soil sweet. Charcoal for drainage, fully two inches deep, and a little mixed through the soil, is good to keep it pure. Taking it out of the pot to rest robs the bulb of much of its strength, and injures the flower scape so that it is often lost. Remaining in dry hard soil for some time is likely to produce the same result. In repotting do not injure the fresh roots, but if possible remove the decayed ones. When at rest do not hurry it; it will make known wants by starting a new growth, after which water more freely. Take off the leaves only as they turn yellow. Removing healthy green leaves is a loss of strength to the bulb.

To follow carefully the natural requirements of growth and rest is the sur-

est way to secure blooms, yet the Amaryllis possesses this advantage over most other house plants, that it may be set away at any season, under any conditions, and yet retain its vitality for months. It may not bloom until once again established in its regular habits, but you still have your plant with a fair prospect of future success. Another advantage, you can have flowers at all seasons of the year; with a moderate supply of bulbs properly managed with a view to the season you wish to bloom them the window garden may appear in gala dress most of the year.—Mrs. S. C. H.

## POTATOES IN GEORGIA.

Years ago it was thought that Potatoes raised here were not fit for seed, and that to secure the best results Potatoes raised at the north should be used for planting. In those days the Pink-eye was the variety generally cultivated here. The Early Rose Potato, however, has been for some years the favorite in Georgia, almost to the exclusion of all other varieties. Planted in February, and given the most ordinary attention, the Early Rose will produce a good crop, and will be fit for table use by the first of May.

After this crop is matured and gathered many of our gardeners soon prepare for a second. If the ground be well plowed and manured, and heavily mulched after planting, another fine crop may be counted on as a certainty. I have a near neighbor whose second crop is usually very fine, many of the tubers being as large as the illustration of the Chicago Market Potato. Another neighbor has weighed a good many of his fall grown Potatoes, and found them weighing often as much as a pound and a quarter apiece.

Without mulching, however, the fall crop will likely prove a failure. Mulching is not only indispensible in fall planting, but in spring is of great advantage; rows that have been mulched producing more than double the quantity of Potatoes of those left without mulching. Early Rose Potatoes raised here do quite as well for planting as those raised at the north. We expect that the new varieties of early Potatoes that are now being sent out will prove of great value in this part of the country. Varieties that grow quickly, yield well, and are good keepers are what we need.—H.

#### AMARYLLIS.

In the March number of the MAGAZINE Mrs. J. J. wishes information upon the culture of plants of this family. These are choicest among my favorite pets, and having had fair success by the following treatment, offer it as my mite to your grand treasury of information.

Beginning with the dry bulb, I use as small a pot as possible, say a four or five inch, for such varieties as Johnsonii, and for potting soil mix, without sifting, onehalf well rotted sod, one-fourth old manure and one-fourth sand, potting loose, and leaving the neck of the bulb just above the soil. I settle the soil with one good watering, after which I place it in some good warm place in the dark, and give no more water until the leaves start. Then, as soon as roots strike to the side of the pot, I repot in one size larger, and when established bring the plant to the light, giving, from this time to the end of the blooming season, water in abundance and continue until the leaves begin to yellow, showing want of rest. Then I gradually dry off the plant and lay it away in the pot in the warmest place I have, giving it no more care than I would a Calla while resting. When the plant again shows signs of growth I do not repot it, but commence watering and give it all the light possible. I find repotting weakens the growth and bloom, and I never do so until compelled to, by over growth of plant r - sets. One of my best plants, now in fine bloom, has not been changed for three years.

I find it important to watch the peculiarities of each variety, and sometimes I find a difference in individuals of the same kind. For instance, while Zephyranthes of all sorts, Formosissima, Johnsonii, Antica, Belladonna, &c., do best with me in strong sunlight, Eucharis and Vallota seem to do better with early morning sun, and shade the balance of the day, that is, during heat of summer. Again, the drying off process does not do for Eucharis, nor Valotta; Zephyranthes candidum, also, and occasionally a Vitatta, Johnsonii, or other variety, will persist in a sort of growth, then I water just enough to prevent flagging while in this semi-dormant state.

I never disturb the offsets until repotting, no matter how long between changes, for with me any disturbance or breaking of roots seems to check both growth and bloom.

I cannot give any definite rule as to time for starting, except as mentioned, viz.: when growth begins, no matter when this happens, as some are early and others late.

With evergreen sorts, like Valotta, I began with the usual mistake of overwatering in winter. I now succeed by treating it as I do my Geraniums, watering say once a week, with plenty of light, and in summer water freely. Mrs. J. J. must not be discouraged with the loss of a few bulbs. I, like most amateurs, have lost many, but the success finally attained after many failures is to me far preferable to an insipid "walk over." Speaking of failures reminds me of my worst one in this family, viz.: with Ismene calathina. Now, if any body has ever bloomed this variety, I would be glad to learn how it was done. It defies me. I have raised it in sand and all sorts of soils, in open ground and in greenhouses; it grows furiously and multiplies rapidly, but never blooms. I began with two bulbs, soon had two dozen or so, but have never had a single flower. Another failure of mine is Mandevillea suaveolens. Let us help each other.-F. U. D.

## MY FLOWER GARDEN.

A great many people have had flower gardens, and many of them very much nicer than mine, but none ever gave its owner more pleasure. The example of a friend who was very fond of flowers, and owned a fine collection of house plants first gave me courage to attempt cultivating them for myself. This friend on one occasion sent for ten dollars' worth of bulbs, and seeds, and the beautiful Tulips, Hyacinths and Lilies which came from those same bulbs made a magnificent show, I assure you. The first Goldbanded Lily I ever saw was one of them. My first attempts were with house plants, and I had wonderful success, or so it seemed to me as well as to my friends. I have had people bring me choice slips that had been sent them, and say, "I wish you would take this, it will be sure to grow for you, and it won't for me," or "what does make your slips grow so much better than mine; I believe if you should stick them in with the top down they would grow."

I had a round bed and a square one made in my yard, sent a dollar for seeds and another for Dahlias, instead of begging them, as was the orthodox way, and every bulb and nearly every seed grew and blossomed beautifully, and I was encouraged to go on in the good work. The next year we bought a new house and had more room to work in, and I gradually enlarged my sphere of operations until my husband began to think he would have no vegetable garden left. It would take up too much room to describe all my operations, so I will confine myself to one year. I remember there were four long beds and three short ones, besides the places where vines were planted to run over the house and piazza. Only one bed was bordered, that had a row of single Jonquils around it, and had a bunch of straw-colored Lilies, a clump of large white Iris and one of purple, two large roots of Dielytra, one Pink, one white Pæony, and a Perennial Poppy with its bright scarlet blossoms; and here let me say that this Poppy is one of the most satisfactory flowers you can have in a garden. I have one that has blossomed for seven years, and it has required no

There were Tulips and three kinds of Crocus set in with other flowers; another bed had seven kinds of Lilies and five Roses, and between were Verbenas and single Petunias. I never expect to see any thing so beautiful again as that bed was. The other long bed was filled with double white Hollyhocks. I sent for a paper of seed of all colors mixed, but every one proved to be white. I was disappointed, of course, for I wanted a variety, but they were beautiful as they were, and I filled the space between with alternate bunches of Pinks and the large crimson Cockscomb, these supplied the colors that was wanted. One of the short beds was filled with double Petunias, there were eight in the bed, and it went to my heart to see them die when the frost came.

I supplied every one in the neighborhood with them and took slips from them for myself; one bed full of Chinese Pinks and one of Phlox of all the different colors completed the list, although there were various nooks and corners where other flower seeds were sown.

I did all the work myself except the digging. I sowed the seed in boxes in

the house; when the plants were large enough I transplanted them, covering them from the heat of the sun when they needed it, and watered them also. Oh, how I did work over them, and what solid comfort I took, if it did make my back ache. I wish I could do it again, and if I live long enough and have good luck, I will.

I did not have any Pansies or Dahlias this year, but the bed that held the Hollyhocks has many a time been filled with Dahlias, seven different kinds and every one perfectly double. One year, I sent for two papers of mixed Pansy seed, sowed them, and, when they came up, transplanted them into the garden, and I believe every one of them lived, and for three years they were the light of my eyes and the pride of my heart. were fifty-two plants, and thirty-two different kinds and colors. Many a time I have picked eight bunches, each one as large as I could possibly hold in one hand in a single day, and no one would think from the looks of the bed that any had been taken. One day I picked for a festival a half bushel basket full, and the next day it was apparently as full as ever.

One year I had nearly two hundred Gladiolus plants. I commenced with, perhaps, twenty, and they increase so fast and are so little trouble, and take up so little room, for you can put one in any where, that I wonder every one does not have them. But I lost every one of them; I took them up very carefully and laid them in the coal-house until I had time to see to them, and before that time came every one froze.

I never spent over five dollars for seeds and bulbs in a single year, and some years not so much, and every year I received more than I spent for them in premiums at our county fair, so my flowers literally cost me nothing but my work.

For three years after I stopped buying seeds and working much in my garden, I had Pansies, Petunias, Phlox, Pinks, Coreopsis, Poppies, and many other kinds, enough to fill up my own yard and supply all my neighbors from the seeds that sowed themselves, and only needed transplanting, or a little cultivation where they stood.

I must tell you about our first Strawberry bed. Talk about first love being the sweetest thing in life! It don't begin with that. I thought if we could get two or three quarts a day it would be, Oh, so nice; and I picked seventy quarts in less than three weeks. The next year we only picked twenty-four quarts, and have never equaled the yield of the first year. I had a new bed set out, last spring, of Crescent Seedlings, but a good many died, and I am afraid we shall not have many berries next summer; but we shall keep on trying and do the best we can. Any one who has a good garden will have to work for it, I can tell him, but there are not many things that give you more solid comfort in this world of ours.—Pen-ELOPE PEPPER.

#### ROSE GOSSIP.

Fverybody loves Roses; their wonderful beauty touches a sympathetic chord in every heart. New varieties of this flower may be produced to an endless extent without the slightest danger of over-stocking the Rose marts or of satiating the ever growing demands of the lovers of this queenly flower, provided, of course, that new candidates possess characteristics sufficiently marked to distinguish them from those already known to fame. It is a fact to be regretted that so few persons in this country turn their attention to the raising of seedling Roses. When we take into consideration the extremely limited number who have engaged in this work, the success attained is sufficiently important to encourage others to make like attempts. The experiment does not by any means offer insuperable difficulties, though a reasonable stock of patience and perseverance, such as all genuine amateurs possess, is absolutely necessary, scarcely more, however, than is required for the successful raising of seedling Gladiolus, Geraniums, Abutilons, &c., for which American florists, such as THORPE, ALLEN, VICK and others, have achieved an enviable reputation, and whose productions vie in size, form and beauty with those of foreign origin.

Rose amateurs might have reason to rejoice should the idea suggest itself to the proprietors of our leading Rose establishments, and induce them to gather the seeds produced by the plants in their extensive collections, especially those of the Hybrid Remontants, and distribute a portion of them to each of their patrons.

Many to whom these seeds might come would doubtlessly receive them with indifference, yet without taking an optimist view of the matter, we may be permitted to believe that at least an important minority would welcome, appreciate and make careful and pains-taking efforts to raise them. Perhaps one of the greatest benefits of such a movement might be in the fact that it would suggest to many persons who might not otherwise have been impressed, the feasibility of experimenting, and also of saving seed themselves for the purpose.

Amateurs animated by an ardent love for this noble flower will not permit themselves to become discouraged by the very small percentage of meritorious plants which may reward their labors, nor to be cast down by the very considerable length of time often required by seedlings to reach the blooming stage. Without attempting the more elaborate procedure of cross-fertilizing, which is the almost exclusive province of skilful and experienced rosarians, the amateur might first confine himself to chance-fertilized Hybrid Remontants, and, as his knowledge and expertness increased, could widen the scope of his operations. He would have this fact to encourage him, that many of our finest flowers have come from chance-bred seedlings. Not all the varieties produce seed naturally, the number of such is limited, others bear seed if artificially fertilized, while many are barren or unproductive. Hybrid Remontants a few good seedbearing varieties may be mentioned, such as Gen. Jacqueminot, John Hopper, Prince Camille de Rohan, Jules Margottin, Lady Suffield, Mad. Victor Verdier, Md'lle Annie Wood, Md'lle Eugenie Verdier, Marie Baumann, Victor Verdier, Fisher Holmes, Dr. Andry, Alfred Colomb, Jean Cherpin, Baron de Bonstettin, Dupuy Jamain, Antoine Ducher, Beauty of Waltham, Duke of Edinburgh.

The hips may be gathered before the heavy autumnal frosts, an indication of maturity being given by the deep red color they assume. They are then placed in pots and covered with coarse sand; at the end of two or three weeks they can be taken out and the seed removed, which should be rubbed to take off the down, and then be thrown into a vessel containing water. The perfect seed will

sink while the worthless will float on the surface, and may be thrown out. France, as a general rule, the seed is sown as soon as ripe, and germinates in from one to three months. In Provence the young plants often produce tiny flowers, in keeping with the lilliputian size of the plants the first month, and indicate to a certain extent the color and future form of the flower; but it is not until the second or third year, when it attains its full development, that a satisfactory judgment can be formed of its beauty or merit, or that its imperfections may be detected. A writer in the Garten Zeitung, says that in Germany, of seed sown in the spring a portion germinated the same season, while another portion did not come up till the second year. Many of the seedlings bloomed when very young, and showed buds with the fifth leaf. Of one hundred seedlings not more than three were perfectly identical in color and fullness, and among the others were infinite shades of difference in the points of color, form, vigor and fragrance. In England, seedlings often bloom when not more than two or three inches high, and at the end of the second or third month, while others of the same sowing may not show their flowers before the end of the third year. When plants show buds at an early stage of growth the first year, it is advisable to remove them in order to give the plants a chance to become more fully developed and vigorous, and to secure more perfect flowers the following year. As our curiosity is naturally very ardent, and there is a strong desire to behold these maiden blooms, it will require a great effort of self-denial to suppress the little buds.

Mr. JAMES DOUGALL, of Windsor, Ont., a gentleman who has devoted many years of a long and useful life to various hybridizing experiments, has had the satisfaction to originate several very valuable Hybrid Cherries, Gooseberries, double and single Lilacs, &c. He has also grown seedling Roses, and as his experience and method may prove of interest, it is here given in his own words. "There is no difficulty in raising Roses from seed. The hips as gathered may be put in a box or flower pot, mixed with a little light mold, and kept damp till ready for sowing. If sown in the fall, which is the best time, fine, rich, light soil that will not

bake hard during winter must be used, as if sown in heavy soil the ground will be so hard by spring that the seed will not come up unless covered with litter. About five diameters of the seed is a proper depth. If the hips have become dried and hard the seed should be rolled lightly between two bricks, this will break or bruise the hard shell, and cause certain germination; without this the seed, in part, would not vegetate till the second year, like the haw. The last lot I sowed was in the fall, and was not bruised between bricks; plenty of them came up, though some remained without vegetating till the second spring. Many of them will bloom the second year, and all the I have not practised artificial cross-fertilizing; my method has been to plant the varieties I wish to raise seeds from closetogether, so that their branches intertwine, when the bees, &c., carry the pollen from one to the other. The results of this plan with Roses, Gooseberries, Lilacs, &c., have been very satisfactory, and I have had no time to devote to artificial methods. My best success has been with Moss Roses, of which I have raised several very fine ones, which, however, are not yet named, owing to having been unwell while they were in bloom, and not being able to critically examine them."

From the foregoing clear and very interesting statement it may be seen that the process of raising Roses from seed is not a complicated one, and presents no difficulties which may not be surmounted by any average amateur possessing a little zeal, patience and "gumption," and should he not eventually succeed in producing a Rose whose matchless beauty would hand down his honored name toremotest posterity, he will, at least, have the exquisite pleasure of having tried todo so, a pleasure amply compensating for failure, and even the regretted little roselings, devoid of a redeeming quality, will be thrown away with many a pang of tender regret, as having once been the center around which clustered so many misgiving hopes and hopeful expectations.

In conclusion, I may add, that last autumn, seed from a small collection of Hybrid Remontants were sown in sixinch pots, in good, porous soil, about the end of November. These were kept in a room with an ordinary collection of house plants, and received the same treatment,

i. e., they were watered as occasion demanded, and received no aid from bottom heat. They began to come up at the end of February, and at this writing, March 21st, many of them have four leaves. The beginning of April they are to be pricked out into three-inch pots, and will be placed in a hot-bed to remain until the weather will admit of removal to the open ground.

This treatment will probably hasten growth sufficiently to enable them to endure the winter, with the aid of a reasonable covering. Should the foregoing remarks induce even a few amateurs to attempt the raising of seedling Roses, they may rest assured that the pleasure connected therewith will far outweigh any care or trouble the experiment may bring. "Vivat Regina."—F. LANCE.

#### PLANTING A NEW PLACE.

On the plains, crossing from the Pacific, the beautiful new country is disparaged every where by mean, forlorn homes, bare of every grace, comfort and attraction. With the wide, sunny sky, the glorious air that breathes like immortality, the open, bold sweep of horizon at sight of which the soul feels uncaged and set free, with the pure, soft penetrating scent of the wild Sage forever in one's sense, one might dwell happy alone, in glorious content, without wealth, without society, as we call it, if it were not for these despicable homes, which are the blot on the fair landscape. Not for their smallness nor rudeness must one despise them, but for the absence of the flowers fruit which should spring in man's footsteps in sign of his possession wherever he crosses the wastes of the world. No thought is taken for these things at first when all thought counts for years of after industry. I have been through the experience of redeeming a new home from the wild sod, a treasured delight it is to look back on, and I am persuaded the spell will be upon me to make another before I die. There is no pleasure like that of winning a home from the wild, of seeing the orchard come into blossom from seedlings one has planted, and watching the Clover sod root out the wayside grasses, and the fast-growing soft-wooded trees increase into picturesque wood belts, while the slower Pines and Maples are growing stalwart. This

right hand would fain be at its favorite work again. The White Pines and Beeches set out with my own hands twenty years ago are brave trees now on the homestead taken up as government land. But when I go west again to stand on native sod and drink free air for the rest of my life, it will be with forethought and provision for home comfort from the first.

The nearest woodland will give young Maples, Cedars and shrubbery, for there are few parts of the country where one cannot find Sassafras, glossy and broad leaved, flowering Dogwood and the native Crab Apple, with its rich foliage and flush of blossom, one of the most ornamental trees for the lawn. Balm of Gilead and Locust trees will be part of the first load sent to the new place, and be set out before the sod corn is planted. Around the house cuttings of Willow will make the readiest screen and show of branches. Plant them close and root them up as fast as they come to crowding. As soon as there is a wall for it to run on, in with a root of Virginia Creeper; it will grow in new soil at the rate of a yard a week, and, what are quick spreading vines for, if not to hide unsightly new dwellings? By August I shall expect to have my cabin, if it is a cabin, wreathed in green from window sills to roof edge. One vine won't do it, of course. There must be twenty on all sides of the house to do the work quickly and well. Madeira Vine, Honeysuckle, Ayrshire Rose, Maurandya, Virginia Creeper, Clematis, Wistaria, Trumpet Flower and Plumbago surely afford variety enough to choose Planted in a rich border and watered with house slops the vines will astonish you with their growth in six weeks. For shade in the yard before the trees branch out, there will be rustic trellises for quick growing climbers. young Cedar tree with the branches cut back makes the most picturesque support, and two of these set eight or ten feet apart with Hop vines trained over them will give you an arch of shade delightful to see and to sit under in warm, August weather. Common as it is, the Hop vine with its pale green tassels is a desirable plant one would be thankful to find mitigating the bareness of a thousand farmsteads where now grows one. The wild Grape, whose roots are in every

woody ravine from Maine to Florida, is worth transplanting to the home for its luxuriant foliage and the matchless fragrance of its blossoms, followed by fruit whose flavor is unsurpassed for jellies. Take time to set out trees and vines, and make the garden before any other work when the soil is fit. A good garden takes off the rawness and discomfort of the first seasons on a new place wonderfully, and plenty of vegetables will prevent the tiresome billious attacks and "breakings out" which are the affliction and hindrance of early settlers condemned to limited diet. Hurry in the Strawberry bed, the Currants, Raspberries, Pie Plant and Asparagus, "they'll be growing while ye're slaping," as the laird said of the trees he advised his son to plant, and you will be picking the fruit from them before you are aware that two years are gone by. But the first season need not be without its comforts of salad, Melons and Cucumbers, which grow wonderfully on new ground, Tomatoes, Celery and nice roots. Especially sow sweet herbs, which add so greatly to savory fare from limited material and prevent the need of medicine. Take care to have the plum and egg Tomatoes, which take the place of fruit for preserves and compotes, and Citron Melons, which take any flavor from that of cider apple sauce to preserved ginger, and furnish mince pies till the orchard is in bearing. There is one little fruit which every settler values who knows of it, which seems created for those barren first seasons before berries grow, the Husk Tomato, with its small, yellow, translucent drop, a delicious blending of sweet and sour in taste. which without a spoonful of sugar stews into a clear, luscious compote for the tea table or for tarts. I wonder that so useful, pleasant, available a fruit is not in every farmer's garden. A paper of seed ought to be in every settler's pocket who goes on a new place. It grows as easily as a common Tomato, bearing till frost, and bears abundantly. I well remember how we prized it in those weary, fruitless years on the prairie, before Wisconsin orchards were started, when dried Apples and Cranberries were the only choice the year round, except for a few wild Plums and Strawberries in their brief season. On my new place there will be a quarter of an acre, at least, of this kindly fruit to

can for the year's supply. Yet the plant is far from common, and I should not know where to look for it outside the seed catalogues.

Finally, I shall not wait five or six years to have the grass plot seeded and Clover started, after the too common practice. All through the wide west, from the Mississippi to the ocean, one's eyes ache for the sight of green turf; I did not see a lovelier thing in California with its wastes of flowers than the short sward of a San Francisco square pearled with White Clover blossoms. Children love such grass and nestle on it as on the lap of their kindest mother, earth. You don't want to look from the window of your new home on bare, trampled soil any longer than it takes to set grass growing. It's a cure for home sickness, and nothing so much helps one to feel settled, and attached to a new home, as to see fresh turf and springing boughs and a garden's growing grace. The sooner you set White Clover creeping the sooner it will drive the weeds out which follow newly broken land, and it crowds out other weeds than Coltsfoot and Burdock. There would be less coarseness and lawlessness in new regions if the raw soil and forlorn houses. could clothe their deformities under a green grass and clinging vines, or if any grace or comfort were blended with the idea of home. Such slight threads draw men away from vice and ruffianism, slight as are the roots of creeping Clover, or the tendrils of the kindly overshadowing wild vine.—Susan Power.

#### LILY OF THE VALLEY IN MOSS.

I am exceedingly fond of flowers, and generally have been successful with the out-door culture of them. With house plants I never was able to do so well, but that was principally owing, I think, to lack of facilities. I have occasionally raised pretty good Hyacinths and Callas, but beyond that my efforts have not been encouraging. This year I was very anxious to have a pot of the Lily of the Valley for Easter, and about five weeks previous to that time I obtained two dozen of the pips. Although entertaining doubts as to the result. I nevertheless resolved to make the effort, and to give them the best attention possible, and as a reward for my efforts, on Easter Sunday I had the pleasure of possessing a pot of Lily of the Valley in full bloom, exhaling the sweetest fragrance, the admiration of many and a wonder to not a few.

My success is evidence that any one who will bestow the same care may raise and enjoy in their homes the beauty of these delicate, sweet flowers during the

LILY OF THE VALLEY, FIVE WEEKS OLD.

months when the storm king is reigning without. My treatment was as follows: The pips were rolled in damp sphagnum, or packing moss, and laid out of doors during the night to freeze solid. They were then taken in doors and allowed to gently thaw, after which the roots were cut off to a length of about three inches. A little moss was laid at the bottom of a six-inch pot, and more put around as an inside lining; then one pip was set in the center and more placed around it at a distance of an inch or so These were next surrounded with an inch thickness of moss, followed by more pips until the pot was filled, after which moss was packed as tightly as possible into all loose spaces.

The pips stood just about even with the top of the pot, and after placing a layer of moss over them, tepid water was poured on until it began to run through into the saucer. The pot was then set on the reservoir at the rear of my cook stove, and water was supplied once a day, and occasionally the pot was turned to equalize the heat upon it. At night it

was removed to the sitting room, where there was a constant and even heat. In about two weeks the shoots were through the moss, and at the end of the third week were two to three incheshigh, with a flower stem to nearly every one. My fear now was they would bloom before the leaves were fully grown, and I therefore moved them to

a cooler room where they had plenty of light. During the fourth week the precious pot was daily moved from window to window that the plants might have all the sunlight possible. In thirty days the transformation was complete, and I had a pot of plants covered with bloom, the sketch of which can only do it justice by the aid of a lively imagination. Twenty-two of the two dozen pips bore flowers.

The pleasure of raising and seeing the flowers was great, but it was much enhanced as I heard the flattering remarks of those who saw them. If my success shall prompt others to raise this beautiful flower, I am sure they will feel amply repaid in the trouble expended. If a succession of bloom is desired it will only be necessary to start the bulbs at different times from

### BEAN WEEVIL.

December to March.—H.

To preserve Beans from weevil, have-cigar boxes or tobacco boxes ready, and when the Beans are perfectly ripe and dry put them in the boxes and fasten up. They will need no further attention. Where boxes of this kind can not be had, pour boiling water over the Beans, and then pour off immediately. But a small quantity of Beans should be treated in this manner at a time, not more than a quart, so that the full benefit of the heat shall be imparted to all the Beans.—E. B. H.



#### GLADIOLUS IN GROUPS.

A writer in the Revue Horticole, in advising that the Gladiolus should always be planted among groups of other plants, either herbaceous perennials or shrubs, says, "I shall always remember the reviving effect produced by a mass of standard Roses which I saw some years since. At the foot of each tree, an intelligent gardener had planted a Gladiolus bulb, and when grown had tied up the plant to the stem of the Rosetree. This produced the effect of pretty heads of Rose-trees fixed upon a great number of flowering standards, instead of those straight whipstocks, stiff and naked, which we have been accustomed to see, and the disagreeable aspect of which has resulted in renouncing almost completely the employment of standard Roses. The effect would not have been less agreeable, nor more, in a bed of dwarf Roses; the Gladiolus stems would then rise above the green foliage of the Roses, and would come into bloom just at the epoch when these admirable shrubs are most parsimonious of their flowers. If I had a mass or group to form by employing Gladiolus, I think I should proceed in the following manner: I should first set plants of Amaranthus melancholicus, the foliage of which, as every one knows, is of a deep red; in each space between the plants of Amaranth I should plant a Gladiolus bulb, and I should surround the whole with a border of Cineraria maritima, the foliage of which is white. The white of the Cineraririas would set off perfectly the deep red of the mass, which, in its turn, by its sombre color would render still more brilliant the colors already so bright of the Gladioli, and this grouping would, without doubt, produce a remarkable effect. This combination can also be varied in a great number of ways by replacing the Amaranthus with other low plants, such as Mignonette, Achyranthus, and Coleus."

# PRUNING MARECHAL NIEL.

Though this peerless Rose has almost attained its majority, having been introduced in 1864, its pruning and general culture can hardly be said to be generally understood. The practice of pruning covers the entire distance from the most severe to none. Only the other day, when stating my views on this matter to several gentlemen, a clergyman asserted I was quite wrong about pruning, as he had beaten all his neighbors by pruning the Marechal back to two buds. Two buds! and how long were his shoots? a vard or more? Well, what about the waste? He had not thought of that; he pruned for big blooms and got them, and that made him advocate a close regimen for Marechal Niel: the few flowers were enough for him. But most rosarians are bound to have some regard to quantity as well as quality. And it is one of the most valuable characteristics of the Marechal that both may be had abreast, provided the plants are skilfully treated and liberally fed. Individual blooms of the most superb form and full size may be grown on plants that are weighted with And even were it enormous crops. otherwise, the majority of cultivators would prefer a dozen, a score, fifty, or a hundred blooms to one, were that one to be swollen to the size of a soup plate. Of course, there will always be found specialists who will endeavor to concentrate as much golden beauty or riches as possible with as few buds or hoards as may be. But it holds good in Rose growing, as in political economy, that a wider distribution of wealth leads to the greater happiness of larger numbers. Provided the Marechal Niel Rose, tree or bush, is strong enough to bear its scores or hundreds of blooms, it seems something akin to sacrilege to slash them off in embryo with the pruning-knife with the hope of having the one or half dozen blooms develop into enormous size.

Unless for show purposes, the largest flowers of the Marechal are by no means the best or the most useful. The general run of blooms or half-opened buds are too large for button holes, and somewhat heavy for hand bouquets. more in reason left on each plant the more useful the flowers for such purposes as well as for vases. Hence, it is obvious that there is nothing gained, but a good deal of material and usefulness lost by pruning the Marechal Niel severely merely to develop size of individual blooms. But others cut back buds to prevent exhaustion. As the Marechal often proves short-lived, it has been too readily taken for granted that the plants have perished from exhaustion, or flowered themselves to death. Nor is this opinion to be wondered at by any who have seen the enormous heads of bloom carried by this Rose. The chief cause of the sudden deaths of Marechal Niel seems to have nothing in common with exhaustion. The joint swellings or huge warts on the stems, either at the point of union with the stock or of divergence of any of the main branches, are the chief causes of the sudden destruction of this glorious Rose. These symptoms rather point to an excess than a paucity of strength or food. The Marechal, if well fed, is capable of carrying an enormous crop of bloom and making good, strong growth simultaneously. While it does the latter it is not likely to succumb to exhaustion through any excess of blooming.—D. T. Fish, in the Garden.

# COCKSCOMBS FOR EXHIBITION.

A writer in *Gardening Illustrated* says that some Cockscombs that were successfully raised for exhibition "were not grown as is generally the case, that is, starving them in their earlier stages of growth so as to make them comb, but they were encouraged by liberal treatment and attention to grow without check, picking off inferior combs, giving them shifts until seven-inch, or eight-inch

pots were reached, then allowing to get pot-bound, so as to encourage the comb to form. When you have got a handsome comb you must improve the plant, which will be far too tall, what is wanted being dwarf plants. These are obtained by cutting off the combs with part of the stems, leaving a sufficient amount of foliage to make them ornamental, inserting them in a small sized pot, and placing them in a brisk heat, a hot-bed, if possible, they will root in a very short time."

## ANTS EATING ROSE BUDS.

"This morning," says a correspondent of the Gardeners' Chronicle, "while looking over some standard Roses that are being forced in a Peach house, I noticed some of the flower buds covered with ants, and thinking they were after aphis or some other insects, I examined the buds more closely, and to my surprise found that they were greedily eating away at the buds, and had already spoiled several of them by eating right into the buds, where, on examination under my pocket-lens, some were busy eating, while others seemed to be sucking the juice out of the embryo petals. I immediately had pieces of old sponges soaked in paraffin and tied round the stems, which soon put a stop to their rose-bud feast, and necessitated their setting off in search of fresh pastures. It is pretty well known that they eat the pistils out of Peach flowers, but I was not aware till to-day that the ant was an enemy to the Rose, also."

# HOME OF COMMON WHITE LILY.

The origin of the common White Lily, Lilium candidum, has long been in doubt, only that some authors have vaguely stated that it was derived from the Orient. To supply positive information on the subject, Father LAZARISTE, of the College of Antoura, at Lebanon, writes to the Revue Horticole, saying: "Our Lebanon mountains are filled with it in several places. It is certain that nobody has planted them there, for they are found in the wildest places where nobody but goatherds have set foot. The origin of the common Lily is then certainly known. I have had the peasants bring them to me, and they are as beautiful as those cultivated in French gar-

#### PLANTS IN NEW ZEALAND.

There is a great difference in the heights to which some of the flowers grow here and in your country. Many of the double Gilias grow here to the height of four feet six inches, and you may fancy what a thicket of them I had, having planted them according to height in catalogue; the single ones were from one foot to eighteen inches high. The double Clarkias and Godetias make the grandest show I ever saw; there are some of both of these plants which grow in tree form that are nearly five feet high. The tall double Scabiosa grows five feet six inches in height. Snapdragon, which in Canada grew about eighteen inches high, grows here, in the third year from planting, five feet two inches, and reached the same in circumference. One. vear after sowing, a plant of Verbena covered a space of five feet; what length it would have reached I cannot say, as I cut it back to keep it off the garden walk. have Mignonette, the seed of which was sown last November, and one plant of it covers a space of over three feet. On the other hand, there are several flowers that do not do so well, notably the Zinma and Balsam; the Zinnia gives very few double flowers, and will not stand transplanting. The Balsam gives few flowers and those very weak. The Snow. ball and Lilacs do miserably, but Roses here go far beyond any thing I ever saw in America, and are of the easiest possible culture. Many flowers and shrubs which are greenhouse plants in the States grow in the open air in this country the year round.-W. S., Normandy, N. Z.

## HIBISCUS ABUTILON.

At a late meeting of the Royal Horticultural Society, London, an Abutilon was shown by the person who raised it, and who stated that the plant was a hybrid between the pollen parent, Hibiscus rosea sinensis, and an Abutilon. The Gardeners' Chronicle says, "An examination of the flower showed that, though the hybrid was a genuine Abutilon, there were yet traces of the structure in the column characteristic of Hibiscus. The lower leaves, too, were like those of Hibiscus, and some of them were marked with a crimson blotch." Evolution and hybridizing are evidently making short work of botanical genera.

## A GREAT BOTANICAL WORK.

A work of the highest value on general systematic botany has just arrived at conclusion after many years time has been spent upon it. We refer to the Genera Plantarum, of BENTHAM & HOOKER, the third and concluding volume of which is just to be issued. "The first part of the work," according to the Gardeners' Chronicle, "was published in 1862, when Mr. Bentham was sixty-two years old, and we believe we are right in saying that Mr. Bentham had passed his sixtieth year before the work itself was actually commenced, though he had previously done a good deal of the preliminary labor incidental thereto." Sir Joseph Hooker has been the associate of Mr. BENTHAM throughout the work. The number of natural orders recognized is exactly two. hundred, and the number of genera about eight thousand. We can join the journal above quoted in congratulating "the authors and every body else on the completion of a work containing definitions of all the genera, up to date, of flowering plants. on a uniform basis—an honor to British science and British pertinacity, and an unqualified boon to the botanical public" Few, excepting botanical workers, can approximately estimate the magnitude and value of this work.

#### LILACS FORCED IN THE DARK.

At the meeting of the Royal Horticultural Society, Mr. HENSLOW alluded to the practice of forcing colored Lilacs in the dark to develop white-flowered sprays, and remarked on M. Bert's experiments. with plants grown in high latitude, and which bore more brilliantly colored flowers than when grown in the neighborhood of Paris, the color not depending directly on light, but on the supply of nutriment supplied by means of the foliage. Hence Hyacinths and Crocuses will bear blossoms of their normal color in the dark, but the Lilac, not having sufficient nutriment in store, cannot perfect the color when forced in the dark.

Revue Horticole notices Artemisia maritima as a plant particularly valuable for fixing drifting sand on sea shores. It is a very hardy perennial, spreading rapidly, and rising as the sand heaps itself up in any particular spot, and covering it, so that the soil is never naked.



#### TURNIP FLEA-WORMS.

We are troubled with little flies and worms amongst our Turnips just when the Turnip leaves begin to show themselves above the ground. What is good to prevent their coming, or destroying the the Turnips? We are also troubled with worms at the roots of all our house plants. Give us a remedy to destroy them.—J. B., Quesnelle, B. C.

The Turnip Fly, which everywhere visits and feeds upon the first leaves of the young Turnip, is a small, black, jumping beetle, and is often called the Turnip Flea, and sometimes Black Jack. beetle feeds only on the young leaves and not on the rough ones. If a Turnip crop can be carried through the first week after it is out of the ground, or until it is in the rough leaf it is safe from much further harm from the insect. The best means, therefore, of guarding against injury by the beetle is to have the soil rich and in the best condition to push the plants along strong and rapidly from the first. In our own practice we have found that dusting the plants, as soon as they make their appearance, with fine airslaked lime, wood ashes, or with plaster (gypsum) has the effect to protect the leaves to a great extent, while it in no way injures or checks their growth. These remedies are very generally recognized and applied. It is true that the insects are not wholly deterred from their attacks by the application of these substances, and if the stand is a poor one it may be destroyed in spite of all efforts to save it. A thick seeding is desirable and then if the plants come well, and the powder is applied as soon as they are out of the ground, and repeated as often as necessary to keep the leaves covered, a sufficient number for a good crop can usually be brought to perfection. often as rains wash the powder off the plants it must be redusted, and kept covered until in the rough leaf. It is best

to apply the dust in the morning when the plants are moist with dew, or otherwise to have one person go forward and sprinkle them, while another follows scattering the powder.

Worms at the roots of house plants can be destroyed by the use of lime water. Take a lump of lime, six or eight pounds, and slake it in a pail of water, and when it has settled pour off the clear liquor and immerse the pot in it, letting it stand fifteen or twenty minutes, and then take it out and allow it to drain. By this means earth worms will be destroyed, or they will come to the surface and can then be removed. The small white worms that are sometimes found in pots of plants may be destroyed by the phosphorous on common matches; take three or four matches and stick them into the soil of the pot, phosphorous end into the soil, and also insert two or three into the soil at the bottom by thrusting them upward through the drainage hole.

#### CESTRUM AND OTHER PLANTS.

How is the Cestrum, or Night-Blooming Jasmine, cultivated? Will it live out doors? I have a Heliotrope that grew out doors last summer, and last fall I took it up and cut it back, and potted it in an old paint keg, well cleaned, in good soil, with good drainage, but it will not bloom. A Salvia that I treated the same way did not bloom, and also an Oxalis floribunda. What was the matter?

The Cestrums should be started into active growth early in spring. A good potting soil for them is composed of one part of good garden loam, one part of leaf mold, and another of sand and manure in equal quantities, all well mixed together. If desired, the plants can be turned out in the garden during summer. In the fall the plants must be removed to the house and kept rather dry during winter. The plants in the paint kegs probably had too much room.

#### MANURE FOR HOUSE PLANTS.

I should like to know what sort of fertilizers you deem best for house plants. I have always used liquid manure from the barn yard, but as I have generally noticed, after using it, a small black fly around the pots, and small worms in the soil, and the little white mite, and thinking they might have originated from using the liquid manure, I concluded to try my plants without it this winter; the consequence was that I had but few flowers, and the flies and worms were just as bad as heretofore. Possibly the insects may have started from the rotten manure used in the potting soil without heating it. Now I have again resorted to the liquid, but use it differently. I turn the liquid wanted for one watering into an old pail kept for the purpose, and pour boiling water into it until it is quite hot, letting it stand awhile to thoroughly destroy any eggs or larvæ it may contain then I add cold, soft water to bring it to the right temperature for the plants. I always use the water lukewarm in winter: This process destroys the in sects and warms the water ready for use on the plants.-Mrs. C. O. M., Massillon, Ohio.

The use of liquid manure in the manner described is quite proper. Cow manure diluted with about ten times the quantity of water is a good liquid manure. About two quarts of soot to a half barrel of water makes a good manure. Tie the soot in a bag and suspend it in the water until its strength is leached out. Weak guano water is a useful manure. Many of the dealers in artificial manures put up in small quantities very good mixtures for house plants, and they can be safely used.

#### GLADIOLUS-CARNATIONS.

VICK'S MAGAZINE comes to me a Christmas gift from my children, and I prize it highly both for the sake of the donors and its own. I enjoy reading it, and have learned much from its pages. Last spring I received two Gladiolus bulbs of you, Louis Van Houtte and Zenobia, and I thought I would tell you of my success with them. The former had one tall, strong stem, which threw out three branches. The flowers were bright scarlet in color, showing some white on the outside of the throat, and remained in bloom a long time. They were very beautiful, indeed. But Zenobia far surpassed any bulb of this kind that I have ever grown. It threw up three strong stems, and one of these had two branches, the other two had only one branch, making seven flower stalks in all, and six of these were all in bloom at one time. The flowers were true to color, and were in bloom a long time. I took up the bulbs in October, and found that there were four large, handsome bulbs in the place of the old one. What is the difference between the German and Italian Carnations?-Mrs. E. P. R., Oregon City, Oregon.

Italian Carnation is a name applied to seed raised on pot plants, and with more care than that on plants in the open ground, and called German Carnation. Both, however, are raised by the German seed-growers, and from plants of the same kind.

#### PANSY-CALLA-AMARYLLIS.

I am very successful with all my plants except the Pansies, which I prize very highly. When first planted they grow and bloom beautifully until about the months of July and August; then the weeds begin to grow, I gently and carefully pull them out, but the plants droop and die, and few, if any, survive the summer. What is the cause of this? Please give me in your May number the best treatment for these beautiful pets. Is it necessary that Callas rest through the summer? What is the best exposure for the Amaryllis, and treatment for the same?—WMM. G., Paris, Ky.

The Pansy likes best a cool temperature, and when the summer heat comes it is injured by it. A temperature never exceeding sixty-five degrees would suit it. With us we have fine blooms in spring, and in the fall after the middle of September. The best course our inquirer can pursue is to keep the plants well mulched with grass clippings, or hay, during the summer, and until the rains come in the fall.

There is no better way to treat Calla plants than to turn them out of their pots into the garden border the latter part of spring, and leave them there until the middle or last of August. Then lift and repot them, and remove to the veranda or house. While in the ground they may be left without attention, and, even if there should be a drought, it will not be necessary to supply them with water.

Communications on previous pages in this number give the information desired in regard to the Amaryllis.

#### MIGNONETTE.

Can you tell me why I do not succeed in raising good Mignonette in the garden? I have tried it in all situations, it comes up, has a few spindling flowers and dies.—A. M. B., *Bristol*, R. I.

It is impossible for us to give any actual or probable cause for the result'here complained of. Mignonette is one of the freest growing annuals, and so complete a failure as here stated must be due, we should think, to local causes. Perhaps the inquirer, A. M. B., may discover the trouble by examining and noticing the situation of the garden, condition of soil and whatever peculiar circumstances may be connected with it.

#### RUBBER PLANT.

What is the best method of propagating the Rubber Plant?—Mrs. J. R. H., Macon, Ill.

Ficus elastica is multiplied by cuttings with bottom heat. The cuttings should be allowed to partially dry off before inserting in the cutting bed.

#### PEARL TUBEROSE.

This delightful flower should be planted at intervals through May and June, either in the open ground or in pots, in order to have a succession of bloom in the latter part of the summer and through the fall.



PEARL TUBEROSE.

Plants that have not bloomed when frost has come can be lifted and potted, and brought along in the house. Late planting can be made in pots instead of in the open, and the pots can be sunk to their rims in the border and thus kept through summer, and can be removed without disturbing them in the fall. In cold parts of the country, during the month of May the bulbs can be advanced by potting them and placing in hot-beds, or even cold frames, until the middle of June, and then they may be turned out.

LARGE ROSES.—A number of blooms of our Triomphe de l' Exposition Rose, last summer, measured five inches in diameter; if we do live in a cold climate we have good success with both garden and house plants.—M. M. H., St. Paul, Min.

#### BOSTON SMILAX.

Will you kindly tell me something of the treatment of Smilax bulbs? When the pots fill are they to be separated and planted at once? Also, should the Bleeding Heart, after blooming, be divided?—Mrs. J. H., San Francisco, Cal.

After the plants have made their growth, they are allowed to remain in foliage as long as possible, being kept properly supplied with water; but when the foliage begins to yellow, gradually withhold water, and finally allow the bulbs a complete rest, keeping them nearly dry. In August or September repot in larger pots and commence to water. If the foliage is desired for use it can be cut in January, and a second growth will make during the winter and early spring.

The Bleeding Heart, Dicentra, should be planted in the garden and left undisturbed a number of years; it will increase in size and beauty for a long time. A dressing of good manure should be given every fall.

#### TRUMPET VINE FROM SEED.

Will you have the kindness to state how to plant seeds of the Trumpet Vine to get them to grow. I have tried them twice, and have never got even one plant.—W. S., *Normandy*, N. Z.

The seeds of the Trumpet Vine, Tecoma (Bignonia) radicans are not difficult to germinate; they need, however, to be planted shallow and in light soil. We prefer to sow them in prepared soil in pans or pots in the propagating house or in the hot-bed. But they will do well in a warm, sheltered spot of sandy border. A light sprinkling of soil to cover them, and then a layer of moss is best; this will hold a constant moisture.

# THE EXPOSITION AT LOUISVILLE.

Arrangements for the great Southern Exposition that is to open at Louisville, Ky., on the first of August, are already far advanced. The main building will have a space of thirteen acres, and besides this there will be galleries and numerous annexes, greatly increasing the accommodations. The applications for room for exhibits are so great that it is thought it will all be taken as early as the first of June, and those that come after will necessarily be turned away. Railroad fares to Louisville from all parts of the country will be placed low. The promise is a magnificent display of all industries of the Southern States.

#### VARIOUS INQUIRIES.

M. J. L., asks if the Apple Scented Geranium blooms. It blooms and produces seed freely.

Mrs. E. I., Sandwich, Kansas, wishes to know if Heliotrope that has been in bloom during the winter needs rest, and what is the best way to carry it through the summer. No especial care need be given to resting it, but it can be placed in the garden in a place somewhat shaded, at least during the hottest part of the day, and so be left until September. In case of drought give attention to watering. In the northern and eastern part of the country the Heliotrope does well in the open ground without shade.

The treatment of a monthly Rose bush is inquired for by E. B. A., of Iowa. It can be planted in a rich spot in the garden during summer, and in the fall, as it will not winter well outside in Iowa, it can be lifted and stripped of its leaves, if they have not already fallen, and be set in moist sand or soil in the cellar, and there remain until time to plant it out again in the spring. Or, instead of placing it in the cellar, it can have its roots and top reduced, and be potted in good soil, and be given a moderately cool place as a window plant.

The treatment of Lilium Harrissii is inquired for by F. M. E., Coman's Well, Va. Harris' Lily is supposed to be a seedling of the variety Eximium, of the Longiflorum species. The habit of the plant is dwarf, as it grows only from fifteen to twenty inches high. The flower in size and form is closely like that of its parent, being trumpet-shaped, pure white, from seven to nine inches in diameter and quite fragrant. It is considered particularly desirable for winter forcing, and also for its length of blooming season in the open ground. The bulbs should be planted in light, deep, porous soil, well drained. If the soil is naturally somewhat heavy, it can be improved by digging in leaf mold and sand. Plant the bulbs about six inches deep, and let them remain several years without disturbance. In the fall give the surface a good coating of well-rotted cow manure, and you can scarcely fail to have abundance of bloom.

#### ROSES IN THE WINDOW.

I have wanted some time to inform you how well I succeed with Roses in the window. The only place I have to keep them is in the kitchen window fronting south and east. I sprinkle the plants every other morning, and in summer every morning. I am using soot water on them now. Every three months I take a table fork and dig out all the dirt from the pot that I can without disturbing the roots too much, and then fill in with well-rotted cow manure, three years old; the result is thrifty looking plants and plenty of buds and bloom. My varieties are Duke of Connaught, Bon Silene, Hermosa, Aurora, Marechal Niel, Sanguinea, Mme. Welche, Beau Carmine, Mme. Margottin.

The red spider is quite troublesome, but by constant sprinkling with tepid water I can keep it down. Like everything else, Roses need care to be nice, but I am amply paid when they bloom so well.

## DEATH OF H. E. HOOKER.

We are pained to announce the death, which occurred on the 12th of April, of the well known nurseryman whose name stands above. There are, probably, but few of our readers to whom that name is not more or less familiar. Mr. H. had been engaged in the nursery business in this city for forty years, having commenced it in 1843, when only nineteen years of age. During this time he had built up a large and successful establishment, which had acquired a name for the correctness and genuineness of its products second to none in the country. Mr. H. was not merely a cultivator and tradesman, but he was an enthusiastic horticulturist and lover of nature. He was an active member during all of his business course of various agricultural and horticultural societies, aiding by his exhibits, his counsel, and his experience; and for many years he had maintained the reputation of a skillful pomologist. In all business and other relations Mr. H. was the soul of truth and honor, and our community and the nursery trade have lost one of their most valued members. We can only hope that his place may be filled by one who shall imitate his manly virtues, and as well adorn the calling of horticulture.

## JAPANESE HORTICULTURE.

The odd looking engraving below is intended to represent the appearance of a package, after the outer wrapper was removed, brought to us in the mail in March last. The package was exactly the shape here shown, but a little more than twice as large each way, and was a special list or catalogue of Maple trees offered for sale by a Japanese horticultural establishment. The figures were



printed in colors on an outside wrapper, on paper of the peculiar texture we are acquainted with coming from that country and China. The leaves, the seed-pod, and the one word in Roman letters sufficiently indicate the nature of the contents, but for the benefit of our numerous readers who have not yet given much attention to their accomplishments in Japanese we will assist them through the hieroglyphic characters, which, commencing at the bottom and reading upwards, convey to the Japanese readers the sounds, A K E R, and that is Maple, the tworld over. This page is printed in

colors, the leaf at the left hand upper corner is crimson, the flowers below the same color, the other leaf green, the winged seeds brown, and the letters black, the whole very neat and tasty; so much for Japanese printing art.

Removing the wrapper, we found a sheet twenty by thirty inches, with the characters already noticed standing at the head as the principal title, while below we read, "A List of Japanese Acer, Lat., (Kayede, Jap., Maple, Eng., Erable, Fr., Ahorn, Ger., Acero, Ital.) Ready for sale by Seigoro Oka, Isaburo Ito and Gosaburo Ito, (florists,) Kami Komagome, Tokio, Japan." There is some reading matter in Japanese characters, and then a list of the Maples offered for sale, printed in Japanese, each name being also given in Roman letters, to enable us to obtain the native pronunciation. The following are specimens: Habsu - inki - Kayede, Oridono - nishiki, Kurabu-yama, &c. In this way are named, and evidently described in a short way, two hundred and two species and varieties of Maples. We have all heard of the beauty of the Japanese Maples and some of us have seen the delicately cut and richly colored leaves.

Unfortunately at the north our climate has proved too severe for most of the kinds that have been tested, and we suppose our southern and California friends are to enjoy these beauties, while we must be content with other species. Possibly a half dozen, more or less, of the Japanese species will eventually be found equal to the climate at the north and west. To give an idea in a few words of the richness of this collection we will notice that the list was divided into thirteen parts or classes, designated as, pedalate (pedate? palmately divided?) leaves, deep pedate leaves, drooping branches, purple leaves, palmate leaves, small leaves, varied leaves, variegated leaves, large leaves, varieties of Acer trifidum, varieties of Acer pictum, varieties of Acer rufinerve, distinct leaves.

The appearance of this catalogue indicates great life and enterprise among Japanese horticulturists, both professional and amateur, for there must be a good home trade that shall warrant so large a collection of trees of one genus, though we are aware that the foreign demand for the Japanese Maples is very great.

#### FLOWERS FOR THE SCHOOLS.

Last December we renewed our offer of supplying flower seeds to the public schools for the purpose of planting in the school yards, and thus beautifying the grounds. Though schools in any part of the country can avail themselves of the offer, comparatively few have done so. Some hundreds are too few, there should be thousands. Evidently our gospel of flowers, though freely offered to the many is accepted only by the few. We are aware that there are great difficulties in raising flowers on the school grounds, but we also know that it is done, and persons of energy and push can accomplish it almost any where. Those who have engaged in it will not willingly allow the school yard to be destitute of plants and flowers afterwards. Though now late for this year, yet our offer continues open, and at the north there is still time.

Our offer is a collection of twelve varieties of seeds of the most desirable, showy and free-blooming annuals to each of the five schools of each county in every State in the country that first apply for them. The only conditions on which these seeds are offered are, that they shall be cultivated on the school grounds, and that by the first of next November a report to us shall be made by letter of the result of the summer's work in the school grounds. Applications for the seeds may be made to us by teachers, trustees, directors, or any school officers stating themselves to be such, and giving the names or numbers by which their schools are known, and engaging to execute the design of our offer.

How many more school teachers and school officers will yet accept the seeds and make the yards about the school houses neat and attractive? This course will be found to interest and benefit the children, the teachers and the community wherever followed. The time is coming when the school grounds everywhere throughout the country will be made attractive by neat lawns, handsome trees and shrubs, climbing vines and beautiful plants and flowers. None but the lowest or the most forsaken communities will be destitute of them. Why not lead instead of following at a distance? What schools shall take first rank in the good work, and thus be examples that others shall desire to imitate?

#### NEW LIFE.

A southerly wind is bearing to me,
On its tide, new life and a beautiful song;
And my heart is bounding, and glad and free,
And I grow in the light of the spring-time strong.

The buds peep up through the old brown leaves, And the forest echoes a song of glee, For each leafless tree with a thrill receives The promise of leaves and buds to be.

The tiniest twig on the quivering bough,
Feels a touch of life 'neath its dull, brown coat;
And the rigorous Oak in the forest, now
Hath a stately nod for each zephyr afloat.

The river, the noiseless, flows onward with pride, Since sunlight his jewels has lain on its breast; And rivulets ripple and dance and glide, Where Mosses and Ferns are most tastefully dressed.

The Apple trees whisper of summer and fruit,
The Cherry boughs swing in their merriest way,
And tiny buds hint of snowy white suits,
And little by little grow larger each day.

There's a stir of new life down under the leaves,
And warmth in the air that has wakened the bees;
There are pearls that the mists of the morning
weaves,

And sunbeams, like gold-threads, let down from the trees.

And the whole earth is glad, for its garments are new,
And the gard'ner busily turneth the mold,
And little eyes watching the sky's azure hue,
Look eagerly now for the blue and the gold.

For the plain Dandelion possesses its charms, And the blue of the Violet speaks to the heart, We are children again, and bear in our arms The trophies age never finds equaled by art.

-MRS. M. J. S., Washington Heights, Ill.

## MULBERRY FOR SILKWORMS.

The Mennonites in Kansas, are engaging largely in Silk culture, and claim that the Russian Mulberry is the best in many respects for that purpose. It is a perfectly hardy and healthy tree. A lady writes to the *American Silk Fruit Culturist* from Corinth, Miss., that she has tried Morus alba, M. Moretti, and M. rosea, all with good results. But her experience with the Japan Mulberry, M. Japonica, places it far ahead of the others.

## A HARDY PEACH.

The Schumacker Peach, which originated in Erie County, Pennsylvania, and bore fruit the first time in 1877, and every year since, has proved itself to be very hardy, and is probably the earliest variety known, having ripened its fruit as early as the third of July. The fruit, in size, is from medium to large, color deep red all over, with an occasional purplish stripe, flesh white, and remarkably sweet and juicy.

#### NATIVE FERNS.

The little Gold Fern of California is so peculiar and so beautiful that it has been largely collected and distributed as a curiosity, and consequently is familiar to many who are even unacquainted with those species of Ferns to be found almost at their doors. Our engraving gives a



GYMNOGRAMME TRIANGULARIS.

fair representation of its general appearance. It grows in tufts, the stipes being from six to twelve inches in length, of a dark brown color, polished, much resembling those of the Adiantum. The plant from which this engraving was made measured nine inches from the ground to the top of the tallest frond. The mature fronds are from an inch and a quarter to five inches in width, and about the same in length, the shape being that of

pentagon with the base and two adjoining sides of nearly the same length, and the two upper sides one-half or two-thirds longer.

The lower pinnæ are much the largest, triangular and deeply pinnatifid, with the lower lobes on the under side much the longest; the upper pinnæ are pinnately

lobed. The rachis is very narrowly winged between the first and second pairs of pinnæ, and broader between the next two pairs. The sporangia are borne along the veins, forming long sori, which are without indusia, becoming confluent, and often covering nearly the whole under surface of the frond. From the fact of the naked sporangia standing in lines is derived the generic name, Gymnogramme, from the Greek, gymnos, naked, and gramma, a line, while its specific name, triangularis, relates to the form of the frond, though, as we have seen, it is not strictly triangular. but pentagonal in outline.

The whole under surface of the frond is invested with a waxy yellow powder, on which account it is called Gold Fern; in some specimens the powder is grayish white, and these are called Silver Ferns, though really it is but one plant representing both of these features. The upper surface of the frond is smooth and of a dark green color. Gymnogramme triangularis is common throughout California, on rocky hills, and extends into Oregon, Arizona and Washington Territory.

Another species of Gymnogramme, G. hispida, with the general form of the one just de scribed, is found in western Texas, New Mexico and Arizona. The

upper surface of its fronds is hairy, and more or less so on the rachis and midveins beneath; it is different also in other particulars.

The Gold Fern may be successfully cultivated in ordinary greenhouse temperature. It should have free drainage to prevent any stagnant moisture at the roots; and yet while growing it needs to be freely supplied with water, as it flags very quickly when becoming dry. Care

should be used to supply the water to the soil, and not pour it or sprinkle it on the foliage, as it washes off and stains the powder, thus destroying the highest beauty of the fronds.

## THE CENSUS AND THE FORESTS.

Under this title the *Popular Science Monthly*, which is always abreast of the times, gives in a contributed article some facts in regard to the timber supply of this country, as obtained by the general census of 1880, but not yet officially published. Professor C. S. SARGENT, of Harvard University, has had charge of the collection of the facts in relation to this subject, and of presenting them in proper form in the Census Reports. This statement to those who have knowledge of Prof. SARGENT will be sufficient guarantee of the thoroughness of the work and the accuracy of the report.

We have not space here to follow the writer through the interesting notes made from the report to which he has had access, and can only quote a concluding paragraph, which the census itself when made public, will verify.

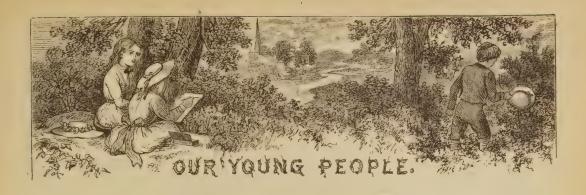
"The revelations of the census will show with new clearness that, in view of the rapid destruction of our forests and the evils threatening in consequence, there is no time to be lost in taking measures to avert those evils so far as possible. What measures in particular should be adopted it is aside from our present purpose to show. It is enough to say in general, that we should do all that we can individually, and by legislative enactment, when necessary, to prevent the further needless destruction of of our remaining forests. We should be more careful and less wasteful in cutting them for the production of lumber. We should guard them more vigilantly, and, by the enforcement of severe penalties, if need be, against those chance fires which result in evil, and evil only, without any incidental good to any one. We should encourage the reproduction of forests, by leaving a sufficiency of seed or mother trees on the ground where the forests are cut, and by carefully excluding from all such grounds the cattle, whose teeth and hoofs together are almost as destructive as the ax or the flames. It is impossible to grow valuable forest trees where cattle are allowed to range in them and browse upon the tender trees. In Europe they have decided, long ago, that the woods are no proper pasture grounds for cattle.

"Finally, we should encourage the planting of many new forests on what are practically the waste lands of many of our States. Such lands can thus be made the most productive, pecuniarily, of all our lands, while in those States and Territories which are comparatively destitute of forests no land is too good to be devoted to this purpose, and no labor of the husbandman promises so important and so profitable results as that of tree-planting on a large scale."

#### THE AMARYLLIS.

The Amaryllis Valotta is easily grown and its cultivation is very simple. I have raised them for fifteen years, or more, and scarcely ever failed to have them They are summer blooming bloom. bulbs, and should be grown in pots out of doors instead of in doors. To have the best effect four or five bulbs should be raised in a small pot, placed in a sunny situation and given water freely, if they are allowed to suffer for the want of it the cultivator needn't be a bit disappointed if the bulbs do not flower. Too large pots and want of water is the reason why most persons fail with them. The pots should have the very best of drainage, for if it is poor and the water allowed to stand around the roots the soil becomes wet, heavy and sour, the bulbs becomes diseased and finally rot. The soil I use is sandy loam, well enriched with well-rotted cow manure, but I would advise Mrs. J. J to use some of Bowker's Ammoniated Food for Flowers in the soil.

About the first of December I put my pots containing the bulbs in the cellar, which is cool and damp, and there I let them lie until May, when I bring them up and repot the bulbs in fresh soil. I give no water during the winter. Amaryllis Johnsonii, and Zephyranthes Treatiæ may be treated in like manner. Amaryllis formosissima should be started early in the house in pots, and after the ground has become warm should be transplanted in a sunny place in the garden the bulbs give but one flower, The bulbs of this kind can be kept over winter like Gladiolus bulbs.—R. B., So. Walpole, Mass.



## A LESSON OF THE ROSE.

My little sister gave me this at morn;
She found it in the garden opened new,
And plucked it gently not to shake the dew,
With careful fingers mindful of the thorn;
A perfect Rose an angel might have worn,
With matchless curve of petals, tender hue,
And all its freshness seemed transfused through,
And trembling with a radiance heaven-born
The child's young sight was swift to recognize.
She bent above it with enraptured gaze,
A glow responsive in her cheeks and eyes;
"How can it be so beautiful?" she says,
Now, soft, I pray: "Therein God make thee wise
And keep thy rose-like bloom the self-same ways."

-Miss M. E. Bennett.

## A WONDERFUL PLANT.

"Good morning, Miss Bristol," said Agnes Strong, as the two met on the street one day early in May. "What a splendid Begonia Rex you have in your window! I just saw it across the street as I passed, and the silver bands of the great leaves were fairly glistening in the sunlight. I never saw so fine a plant of the kind."

"Nor I. Call in and see it."

"Thanks! I would be glad to do so. And, Miss Bristol, may I—would you care if I were to bring all of your class to call on you some evening before long? We often wish we could have you all to ourselves occasionally outside of the Sabbath school."

"Is it possible you have such a thought? Nothing could please me better. Be sure to come quite soon." And thus they parted: each one feeling that she had a pleasure in prospect.

Miss Bristol, though no longer young, was a noble, attractive woman, the only companion and comfort of a feeble old father. One evening soon after her talk with Agnes she was sitting quite alone, pondering over some new witchery of trel-pondering over some new witchery of trel-pondering and vine that she was having arranged as the center-piece of a group of smaller plants. Above it hung a long bird cage, so constructed that a pair of small fish-globes were fitted to the top. In each one was a golden beauty, darting swiftly about one moment, lis and vine that she was having arranged as the center-piece of a group of smaller plants. Above it that a pair of small fish-globes were fitted to the top. In each one was a golden beauty, darting swiftly about one moment, lis and vine that she was having arranged.

in her yard, when she heard a light tap at the door, and upon opening it was greeted by Herbert Talbot, one of the youths of her class. Instead of stepping right in, he said: "There are nine others outside the gate. Will not so many of us disturb your father?"

"Not at all," was the answer, "he has retired for the night, and is already sleeping soundly. Have them come right in."

So, presently there was a light-hearted group gathered within doors, too many to introduce now to the reader by name. But it must be mentioned that never had lady such ardent admirers, who was so utterly unconscious of it as was Miss Bristol. She had greeted the girls with a kiss as they came in, and each one had wanted to hug her that instant. As the boys followed in after, she had given the first one her hand with the remark that young gentlemen would doubtless disapprove of such a liberty, and received for answer a hearty smack from each one of them—greatly to her surprise—while a glow of pleasure lit up her face as she said to herself, "They do not dislike me at any rate."

Then for a few minutes there was a perfect hum of suppressed talk and laughter, -suppressed instinctively—all being so well-bred as to forget for the time being what each one well knew-that Mr. Bristol had been exceedingly deaf for years. Suddenly up sprang Agnes Strong saying: "Now girls, we must have a good look at the Begonia Rex;" and all gathered around the wonderful plant. It had been deftly arranged as the center-piece of a group of smaller plants. Above it hung a long bird cage, so constructed that a pair of small fish-globes were fitted to the top. In each one was a golden beauty, darting swiftly about one moment, suspiciously eyeing the busy scene. The birds roused up and hopped off and on their perches, until seeming to understand the situation, they proved true to their instinct of not wishing to be outdone when any unusual stir is going on, and promptly gave the company a free serenade.

But this marvel of a Begonia! What about that? Each girl had remarks to make—what one did not think of another did—until there was a perfect fusilade of comments. "O, such large, such perfect leaves!" "And so many of them!" "And all flush with color as though proud to bear their burdens," added Emma Stanley, who had poetic tenderness.

Then the boys, who had been across the room examining a cabinet of stuffed birds, trying to name each one, joined the girls, looking over their shoulders, and inquired what all the fuss was about.

"It's about this plant," said Agnes Strong.

"It is pretty; but is there anything wonderful about it?" asked Herbert.

"Pretty!" scornfully retorted his sister;
"It is perfectly glorious!" Then in an undertone he asked if her adjective was not rather out of place, and she answered promptly, "Not more so than yours." Meantime some other boy was saying that he had seen plants something like that, he thought.

"Yes, something like it, no doubt," replied a miss; "but you certainly never saw a group of such large healthy leaves without a flaw, or a worm-hole, or torn edges." And he answered, looking wisely, "Ah, yes; that is possible, and therefore this particular plant is quite remarkable."

During this interchange another youth had reached over and put his fingers in the pot. "It's the soil," said he, "that is very rich; see how dark it is!" Then Herbert, not wishing the girls to think him lacking in interest, took a squint into the pot and a pinch of the earth in his fingers and said, "Yes, that is very fine soil indeed. Do you use bone-dust, Miss Bristol?"

"I have used none on that," she replied. Then Agnes Strong asked if she might ask a question or two.

"Certainly," said Miss Bristol, "ask as many as you like." So there was soon as sharp a fusilade of questions as there had been of comments.

"How long have you had this plant" commenced Agnes.

"Several months."

"Is it possible! Did you grow it under glass?"

"No, I gave it no particular care, except to screen it from dust."

"Have you really no secret connected with its culture?

"None at all. Ask anything you wish."

"Well, then, Miss Bristol, did it get the sun all winter?"

"Almost none at all. Father admired it very much, and so I left it mostly in his room, and called it his plant."

"Indeed! and did you keep it quite wet?"

"No; sometimes father would worry about it and give it a regular drenching before I knew it. And then perhaps we would both forget it for a month. He used to watch it daily for some sign of bloom, but has given that up."

"O, dear!" sighed Agnes Strong, "that kind of Begonia is one of my favorite plants; I do wish I could raise one like that. Miss Bristol, was it propagated from a side-cutting or a leaf-layer?"

"I did not inquire; it was sent to me as a present from New York City."

"Indeed! and how large was it when you received it?"

"It was the same size it is now."

"Why, Miss Bristol!" and the girls rushed to the window to get another look, while the boys were muttering something about being "sold," "taken in," etc., telling Miss Bristol that they would not have thought her capable of practicing that sort of thing on her "innocents." But she begged them not to think of that side of the matter at all, for it was wholly unpremeditated. The queries and comments grew to be so amusing that she had allowed them to go on. "Now I will turn on more light," she said, "and you will understand why I was so saving of the gas. A careless observer would not think of the plant being artificial; but I imagined that this would be closely inspected, by one of the party at least, and feared it would not bear the scrutiny in a strong light. At any rate I wanted the thing tested."

The girls had taken their seats, disgusted with their late enthusiasm. The boys had been cautiously feeling the leaves, and finally queried, "Leather?"

"India-rubber?" "Felt?" (while the girls were making wry faces at each other) and Miss Bristol answered, "I do not know, but I would like you all to consider now whether the idea involved in that plant is not a good one. There could be a few other plants imitated, including the Madeira Vine. The English Ivy is already manufactured in great quantities, chiefly to decorate churches, where their presence is an irreverent mockery. But in our homes it would be different, and a supply once secured would last for years. Then there would be no further trouble of watering and pruning, and enriching the soil; no torments to be encountered in the form of green aphis, scale-insects, red spiders, etc. No more worries about frozen or pot-bound plants; all would be lovely! would it not? I seem to detect a look of disappointment, or disgust, on your faces. What is it? Do you think a room would be fresh-looking and cheery if decorated with such specimens of man's ingenuity?"

"Excuse me, Miss Bristol, but it makes me shiver to think of it," said Emma Stanley. "A solitary one like yours might be prized as a curiosity, but how could any number of them make a home seem-seem-"

"Emma's right! Emma's right!" said two or three boys at once. "You've got to have something that has life in it or you can't care for it in the right way."

"Can't care for it," added Miss Bristol, "in a way that will call up a new interest each day—as you note the development and that will stimulate observation until you will not only 'consider the Lilies of the field' but all growing things down to the weeds and grasses. Of course, in my talk just now, I was only trying to draw you out, and thus learn if there is not really a healthful, inborn love for nature in your hearts, in preference to lifeless imitations, however cunningly fashioned. I am satisfied—it is as I had hoped."

Then Herbert remarked that if the bogus plant had not been stuck into the earth as though it were growing, there would not have been such a revulsion of feeling. But the very deception practiced, he was sure, would make him love every growing plant the better for the rest of his life.

Emma's young cousin, Tom Stanley, said that when he set his affections on tability when de crap come out short.

plants they'd have to have sap in them and roots to grow with. And then Agnes Strong declared that she had not had a chance to get in a word during the discussion, and now it was time to go home, but she wanted Miss Bristol to know that she would not have the finest looking English Ivy in the world if the scale insects would not like to live on it if they got the chance! After which an appointment was made for another meeting, the good nights were exchanged, and the young people departed.—Aunt MARJORIE.

## HEALTH ALPHABET.

As soon as you are up shake both blanket and sheet; Better be without shoes than to sit with wet feet; Children, if healthy, are active, not still; Damp beds and damp clothes will both make you ill; Eat slowly, and always chew your food well; Freshen the air in the house where you dwell; Garments must never be made too tight; Homes should be healthy, airy, and light; If you wish to be well, as you do, I've no doubt, Just open the window before you go out; Keep your rooms always tidy and clean; Let dust on the furniture never be seen; Much illness is caused by the want of pure air, Now, to open the windows be ever your care. Old rags and old rubbish should never be kept; People should see that their floors are well swept; Quick movements in children are healthy and right; Remember, the young cannot thrive without light; See that the cistern is clean to the brim: Take care that your dress is all tidy and trim; Use your nose to find if there be a bad drain; Very sad are the fevers that come in its train; Walk as much as you can without feeling fatigue; Xerxes could walk full many a leagne; Your health is your wealth, which your wisdom must keep.

Zeal will help a good cause, and the good you will

# SHORT AND SPICY.

Among the many good things offered to the readers of the Century are "Aphorisms from the quarters." The following are some that appeared in a late number of that journal.

De bes seed ain't bound to make big Water-millions.

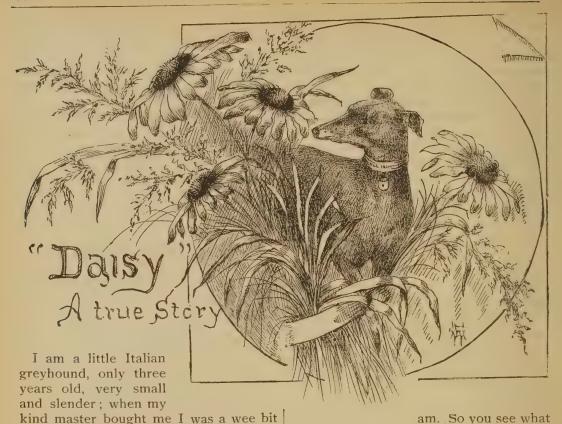
You can't take de twis out de Gra'-vine by cultervatin it.

Green 'Simmons ain't 'fraid o' nobody. See whar you gwine to hit 'fo' you lif' de hoe.

You don't need much fence 'roun' de Cowcumber vine.

A hole unde' de garden palins is a hard secret to keep.

Sas'fras-root tea won't hu't your 'spec-



me about in his pocket, because he did not like to leave me alone at home. He enjoyed introducing me to his friends and acquaintances, who often flattered me with pretty speeches, and I showed my delight by a slight growl, which they thought was amusing in a little dog, and so I grew up very vain. When I became too big to be carried around in my master's pocket I felt very badly, and tried my best to squeeze myself into my former size, hoping that I might again be able to take up my old quarters; but it was all in vain, for I grew very fast and ate a great deal for a little dog, and soon lost all hope of ever being carried in that way again. In order to pacify me children then took me out to ride in the baby carriage. I laid my head on the pillow and went to sleep, just as I had seen the baby do, which amused the children greatly. I was too proud to curl myself up, as other dogs do, so I would stretch myself out, although I found it very uncomfortable at first, but I soon became

used to it and now would not sleep in

any other way. Whenever I meet any

one on the street, wheeling a baby car-

riage, I try to jump into it, and then the

people laugh at me and wonder who I

of an object, and he used to carry

am. So you see what force of habit will

do. When I take my morning walk with my master I never venture far away from him for fear some naughty boy might pick me up and run away with me. Then what would become of me? For I have a lovely home, plenty of good things to eat, and the children take the best care of me and enjoy my funny ways. I am a particular dog in many respects, especially in regard to my regular meals, and I cannot touch any meat that is not well cooked. Another queer idea that I have is that I will not allow any one to watch me while I am eating. So my mistress covers the plate with a newspaper, and then I poke my head under it and do justice to the meal. If the paper slips off before I have finished I pick it up in my mouth and put it on again. I know I cause a great deal of trouble, nevertheless I am loved, and attention is given to all my wants. I am very fond of cake and candy, but I love ice cream the best, and when the children say, "Daisy, don't you want some ice cream," I know in a minute what they are saying, and stand right up on my hind legs and beg for it. Sometimes they deceive me about it and don't have any to give me, then I run away and hide under the bed, and it is a long time before they can get me to come out and play with them, because of my disappointment. They often buy candy, but never forget to save me some, and when they think I am becoming too avaricious they run out of the room and hide, and often come back rubbing their hands together, which means, "No more candy for Daisy," "all gone." Then I know there is no use to whine for more. I can always tell when it is baking day, for as soon as I smell the cake baking, no matter what part of the house I may be in, I run down stairs as fast as I can into the kitchen, and sit close by the stove door until I see my mistress take the loaves of cake out of the oven, and when she comes to my little loaf, which is made expressly for me, I am wild with delight, and bark as loud as I can for joy, then wait patiently for it to cool. I thank my kind mistress by lapping her hand, and that is intended for a kiss; then off I go to frolic with the little ones. I have a pretty silver collar which I wear. It has my name written on it and is fastened with a silver padlock. If I do not find any water in my tumbler when I am thirsty, I strike the padlock against the side of the glass until some one comes to give me a drink. Every night, about ten o'clock I like to go to bed, and if my master and mistress seem inclined to sit up later, I go up to them and beg to go to bed by whining in a pleading tone, which they understand at once, and I am so glad when I hear them say, "Daisy, time to go to bed." Oh, if you could only see my little bed. It has two pretty blankets with my name embroidered in the corner, and a tiny pillow, soft and warm. I stretch myself out, like any person, and lay my head on the pillow, while they cover me up. Then I sleep very soundly, and never get up until they call me. As soon as I am called in the morning I spring out of bed and frisk around until breakfast is ready; but I won't eat mine until the family are seated at the Table.

There is an artist in the house, and we are great friends. My mistress wanted him to paint my picture, one day, so he perched me on a chair and began to scratch my head to keep me quiet, for I will sit still by the hour if any one will do that. I could not imagine for some time what he wanted to do, for I saw him take

a brush and commence painting on a tamborine. At first I was frightened, for, as I had heard my mistress say she wanted my picture taken, I thought he was going to paint me, and I did not care to have my glossy coat ruined with paint; but I soon discovered what he was about, for I saw a little dog begin to appear on the tamborine, and I could see that it looked like me, and that pleased me so much that I kept very quiet. Every day I used to scratch on the door for him to let me in, and I would run and sit up on the chair, then look up in his face to see if he were ready. In a few days my picture was finished, but I still went into the studio, hoping he would paint another, for I heard my mistress say she thought it was so pretty, and that touched my vanity, and I wanted my portrait painted all the time.

Another one of my peculiarities is to take possession of my mistress' room when she is away, and make myself comfortable during her absence, by stretching myself out for a nap on one of the pillows, but in doing so I am always careful to take the pillow sham off the pillow between my teeth that it may not be torn or injured in any way. Sometimes, when I have been naughty, my master says, "Daisy, we will have to sell you," and that makes me cry, for I love my master and mistress dearly, and I know I should not have another home like this, and would soon pine away and die. I have heard people tell of big Newfoundland dogs that have saved lives, and how faithful they are to their friends, but I know that they can never love those who are kind to them more than "Little Daisy."-K. C.

# LIFE AMID ETERNAL ICE.

The Jeannette Island, found and named by the unfortunate Jeannette Expedition, is a little more than nine hundred miles from the North Pole. It is from 2,500 to 3.000 feet high, barren and rocky. Over the higher part of it is a coating of snow and ice from fifty to a hundred feet in thickness. Can any thing grow on such an island? Yes, on some favored spots, sheltered from winds and open to the sun, they found there two kinds of Mosses, two of Lichens and one of Grass. The Black Guillemot and the Snow Bunting were the bird inhabitants.



The letter below, from the island of Jamaica, will be read with much interest. One can hardly resist a feeling of covetousness when reading of that "tank." The Nelumbium speciosum spoken of is a native of southern Asia and northern Africa, and is, doubtless, the real "Sacred Lotus." Its seed, or nut, is supposed to be the "Sacred Bean" of the East Indies. It holds a high place in the mythology of the Chinese and Hindoos. The deities of the latter are often represented seated on thrones of its shape, or on the expanded flower. It symbolizes Meru, the residence of the gods. The Chinese give it also a poetical significance, connecting it with Buddha. It is impossible to say why your Heliotropes do not bloom, if they are "large and healthy." Sometimes too rank a growth is the cause. We would be glad to publish all names of club members but space is limited, and there seems now but one way to get into this department, and that is for the young people to write letters upon subjects in which editors and readers are interested. Hear this young West Indian.

I send you the names of the members of our club, only nine at present. Of course, you know that this is the land of spring and natures own garden. But perhaps you do not know that Port Maria and Port Antonio are the two principal ports from whence most of the Bananas are shipped to America. What do you think of this? Exported during 1882

	to	S.	a.	
Bananas. 887,370 bunches, value,	. 88,737	0	0	
Oranges, 55,456,978. value,	. 33,684	2	6	
Mangoes, 150,671, value,	. 145	13	4	
Pine Apples, 8,886, value	. I,IIO	17	I	

I want you to tell me in the MAGAZINE if the Nelumbium speciosum is the real Sacred Lotus, and of what country it is a native. I have a plant of it in a small tank, with a Babylonian Willow growing from the center of the tank. It is much admired; am no artist or I would send you a sketch of it. The following plants all thrive remarkably well with me: the Coleus, Petunia, Verbena, Alternanthera, Zinnia, Calliopsis, Cypress Vine, Geranium, Roses, Phlox Drummondii, Portulaca, Japan Pink; but I cannot succeed at all with Pansies, Carnations, Hollyhocks, Antirrhinums, Columbines, Sweet Williams and Mignonette. They will all grow up strong plants and then suddenly shrivel up, just as they are going to bloom. I have two large bushes of Heliotrope nearly two years old. They are very healthy, but will not blossom. Can you tell me the reason? I attribute my lack of success with some plants to the low district and sea air. The north winds burn up my Rose and Grape leaves, leaving them brown and dry. I shall tell you how I succeed with my Roses later on. I cut them back quite close on the fourth of February, and they are now throwing out a lot of fine shoots. Adieu.—WM. SPECK, Port Maria P. O., St. Mary's, Jamaica, W. I.

The writer of a letter from McHenry, Ill., says that when she learned that she was the only one at her P. O. taking this Magazine, that she made up a club, and sends the names to verify the statement. Thinks she is too old to be classed with young people. But promptness in well doing deserves notice. She says of their school ground:

Our teacher has done a good deal toward making the yard look better. She and the children have removed all rubbish and cut out all Burdocks and Thistles, and planted some young Maples. Perhaps in time they may have flowers, if people will quit leaving the gate open and letting in cattle.—H. L.



AMERICAN POMOLOGICAL SOCIETY.—The Pennsylvania Horticultural Society having invited the American Pomological Society to hold its next meeting at Philadelphia, the Nineteenth Session of this National Association will be held in that city, commencing Wednesday, September 12th, 1883, at 10 o'clock, A. M., and continue for three days.

All Horticultural, Pomological, Agricultural, and other kindred associations in the United States and British Provinces are invited to send delegates.

Arrangements have been made with hotels and some of the railroads terminating in Philadelphia for a reduction of fare. In most cases it will be best for delegations to arrange for rates with the roads in their localities.

A general exhibition of fruit is expected. Exhibitors should not fail to give notice as far as possible, at an early date, what room will be needed for their fruits. Six specimens of a variety will be sufficient except in fruits of unusual interest. A limited number of Wilder Medals will be awarded to objects of special merit. Packages of fruit should be addressed to Thomas A. Andrews, Horticultural Hall, Broad Street, Philadelphia, for the American Pomological Society. Freight and Express charges should be prepaid.

Ferns of the United States.—It appears by a paper read before the American Philosophical Society, a short time since, by George E. Davenport, that the entire number of species of Ferns in the United States is one hundred and sixty-two or one hundred and sixty-four. Of this number fifty-two are found in the State of New York. The State having the next largest number is California, with positively forty-eight, and a probability of four more. Michigan and Florida stand next in rank. Mr. Davenport announces in preparation a text book and Manual of the Ferns of North America, north of Mexico. Presumably Mr. D. is the author, and as such we may be sure the work will be executed with rare ability and fidelity.

